

In the Claims:

1. (Currently Amended) A method for controlling a brake system of a vehicle wherein braking effect on the vehicle wheels is a function of brake pedal force exerted by an operator, said braking effect being enhanced by an adjustable braking force booster from an original characteristic to an enhanced characteristic, said method comprising:

detecting dynamics of vehicle movement by determining at least one of a yaw rate or a transverse acceleration;

analyzing said dynamics-yaw rate and/or transverse acceleration to detect a risk of swerving or skidding of said vehicle;

changing the characteristic of said braking force booster when said analysis indicates a risk of swerving or skidding ~~independent of an activation of a brake pedal force such that if a brake pedal force is exerted by the operator it will result in an increased braking force, and~~

changing the characteristics of said braking force booster back to said original characteristic if said analysis indicates that said risk of swerving or skidding no longer exists.

2. (Previously Presented) A method according to claim 1 wherein said characteristic of said braking force booster is returned to an original condition where said analysis no longer indicates a risk of swerving or skidding.

3. (Withdrawn) A method according to claim 1 wherein said adjustable braking force booster provides a first normal braking force as a function of brake pedal pressure for normal vehicle operation and a second higher braking force as a function of brake pedal pressure when said analysis indicates a risk of swerving or skidding.

4. (Withdrawn) A method according to claim 3 wherein said risk of swerving or skidding causes said braking force booster to switch to said second braking force as a function of brake pedal pressure.

5. (Withdrawn) A method according to claim 1 further comprising monitoring operator use of at least one vehicle control to detect a condition wherein the operator may apply full braking and increasing the force boosting effect of said braking force booster when said monitoring indicates a condition wherein said operator may apply full braking.

6. (Withdrawn) A method according to claim 5 wherein said monitoring comprises monitoring the operator's use of an accelerator.

7. (Withdrawn) A method according to claim 6 wherein said condition wherein said operator may apply full braking is detected by rapid release of said accelerator.

8. (Withdrawn) A method according to claim 1 wherein the vehicle further comprises at least one clamping device for braking the vehicle having a free play, and an actuator for moving said at least one clamping device into clamping engagement, said method further comprising the step of:

in response to detection of said risk of swerving or skidding operating said actuator to overcome the free play of said at least one clamping device so that the clamping device is preloaded.

9. (Withdrawn) A method according to claim 8 further comprising monitoring operator use of at least one vehicle control to detect a condition wherein the operator may apply full braking and operating said actuator to overcome free play of said at least one clamping device when said monitoring indicates a condition wherein said operator may apply full braking.

10. (Withdrawn) A method according to claim 9 wherein said monitoring comprises monitoring the operator's use of an accelerator.

11. (Withdrawn) A method according to claim 10 wherein said condition wherein said operator may apply full braking is detected by rapid release of said accelerator.

12. (Currently Amended) A braking system for a vehicle comprising:

a brake pedal for operation by a vehicle operator for applying braking force;
a braking force booster for increasing said braking force, said booster providing a first normal braking force as a function of force applied to said brake pedal and being responsive to a first control signal to change said normal braking force as a function of force applied to said brake pedal; and

a processor responsive to at least one of a yaw rate or a transverse acceleration supplied signals representing dynamics of vehicle movement, said processor being programmed to analyze said dynamics yaw rate signal and/or transverse acceleration signal to determine a risk of swerving or skidding and to provide said first control signal to said booster to cause said booster to change the characteristic of the braking force booster when said dynamics indicate a risk of swerving or skidding ~~independent of an activation of a brake pedal force.~~

13. (Previously Presented) A braking system according to claim 12 wherein the braking force change is an increase of braking force as a function of force applied to said brake pedal.

14. (Previously Presented) A braking system according to Claim 12 wherein said braking force has variable braking force as a function of said first control signal.

15. (Withdrawn) A braking system according to claim 14 wherein said braking force booster has a second braking force as a function of force applied to said brake pedal, and wherein said first control signal causes said booster to change from said first to said second braking force.

16. (Previously Presented) A braking system according to claim 12 wherein said processor is a part of one electronic stability system.

17. (Withdrawn) A braking system according to in claim 12 further including a device for supplying said processor with second control signals representing a vehicle operator's use of at least one vehicle control, and wherein said processor is responsive to said second

control signals to detect an operator condition wherein the vehicle operator may apply full braking, and wherein said processor provides said first control signal in response to said operator condition.

18. (Withdrawn) A braking system according to claim 17 wherein said at least one vehicle control comprises an accelerator.

19. (Withdrawn) A braking system according to claim 18 wherein said processor detects said operator condition by rapid release of said accelerator.

20. (Withdrawn) A braking system according to claim 12, further comprising:
at least one clamping device having a free play, responsive to an actuator, for applying said braking force to said vehicle;

the actuator, responsive to said braking force and said first control signal for operating said at least one clamping device, wherein said first control signal operates said actuator to overcome the free play of said at least one clamping device so that the clamping device is preloaded.

21. (Withdrawn) A braking system according to claim 20 wherein said processor is a part of one electronic stability system.

22. (Withdrawn) A braking system according to claim 20 further including a device for supplying said processor with second signals representing a vehicle operator's use of at least one vehicle control, and wherein said processor is responsive to said second control signals to detect an operator condition wherein the vehicle operator may apply full braking, and wherein said processor provides said first control signal in response to said operator condition.

23. (Withdrawn) A braking system according to claim 22 wherein said vehicle control comprises an accelerator.

24. (Withdrawn) A braking system according to claim 23 wherein said processor detects said operator condition by rapid release of said accelerator.

25. (NEW) A method according to claim 1 wherein said adjustable braking force booster provides a first normal braking force as a function of brake pedal pressure for normal vehicle operation and a second higher braking force as a function of brake pedal pressure when said analysis indicates a risk of swerving or skidding.

26. (NEW) A method according to claim 25 wherein said risk of swerving or skidding causes said braking force booster to switch to said second braking force as a function of brake pedal pressure.

27. (NEW) A method according to claim 1 further comprising monitoring operator use of at least one vehicle control to detect a condition wherein the operator may apply full braking and increasing the force boosting effect of said braking force booster when said monitoring indicates a condition wherein said operator may apply full braking.

28. (NEW) A method according to claim 27 wherein said monitoring comprises monitoring the operator's use of an accelerator.

29. (NEW) A method according to claim 28 wherein said condition wherein said operator may apply full braking is detected by rapid release of said accelerator.

30. (NEW) A method according to claim 1 wherein the vehicle further comprises at least one clamping device for braking the vehicle having a free play, and an actuator for moving said at least one clamping device into clamping engagement, said method further comprising the step of:

in response to detection of said risk of swerving or skidding operating said actuator to overcome the free play of said at least one clamping device so that the clamping device is preloaded.

31. (NEW) A method according to claim 30 further comprising monitoring operator use of at least one vehicle control to detect a condition wherein the operator may apply full braking and operating said actuator to overcome free play of said at least one clamping device when said monitoring indicates a condition wherein said operator may apply full braking.

32. (NEW) A method according to claim 31 wherein said monitoring comprises monitoring the operator's use of an accelerator.

33. (NEW) A method according to claim 32 wherein said condition wherein said operator may apply full braking is detected by rapid release of said accelerator.

34. (NEW) A braking system according to claim 14 wherein said braking force booster has a second braking force as a function of force applied to said brake pedal, and wherein said first control signal causes said booster to change from said first to said second braking force.

35. (NEW) A braking system according to in claim 12 further including a device for supplying said processor with second control signals representing a vehicle operator's use of at least one vehicle control, and wherein said processor is responsive to said second control signals to detect an operator condition wherein the vehicle operator may apply full braking, and wherein said processor provides said first control signal in response to said operator condition.

36. (NEW) A braking system according to claim 35 wherein said at least one vehicle control comprises an accelerator.

37. (NEW) A braking system according to claim 36 wherein said processor detects said operator condition by rapid release of said accelerator.

38. (NEW) A braking system according to claim 12, further comprising:
at least one clamping device having a free play, responsive to an actuator, for applying said braking force to said vehicle;

the actuator, responsive to said braking force and said first control signal for operating said at least one clamping device, wherein said first control signal operates said actuator to overcome the free play of said at least one clamping device so that the clamping device is preloaded.

39. (NEW) A braking system according to claim 38 wherein said processor is a part of one electronic stability system.

40. (NEW) A braking system according to claim 38 further including a device for supplying said processor with second signals representing a vehicle operator's use of at least one vehicle control, and wherein said processor is responsive to said second control signals to detect an operator condition wherein the vehicle operator may apply full braking, and wherein said processor provides said first control signal in response to said operator condition.

41. (NEW) A braking system according to claim 40 wherein said vehicle control comprises an accelerator.

42. (NEW) A braking system according to claim 41 wherein said processor detects said operator condition by rapid release of said accelerator.